

AMENDMENTS TO THE CLAIMS

1-41. (Canceled)

42. (New) A method for managing event-condition-action rules in a database system, the method comprising the computer-implemented steps of:
storing data in a database that represents a composite event comprised of two or more primitive events, at least one condition related to the composite event, and at least one action related to the composite event;
detecting a first database event as an occurrence of a first one of the primitive events;
determining whether the first database event satisfies the at least one condition related to the composite event;
persistently storing the result of the determining in the database;
detecting a second database event as an occurrence of a second one of the primitive events; and
determining whether the at least one condition is satisfied based on the persistently stored result and the second database event.
43. (New) The method as recited in Claim 42, further comprising:
determining that the at least one condition is satisfied by determining that the second database event was detected within a particular time after detecting the first database event; and
wherein the persistently stored result indicates the time the first database event was detected.
44. (New) The method as recited in Claim 42, further comprising:
determining that the at least one condition is satisfied by determining that the second database event was not detected within a particular time after detecting the first database event; and
wherein the persistently stored result indicates the time the first database event was detected.

45. (New) The method as recited in Claim 42, wherein the persistently stored result indicates that the first database event satisfied the at least one condition.
46. (New) The method as recited in Claim 42, wherein the persistently stored result indicates that the first database event satisfied that at least one condition before the second database event satisfied another condition related to the composite event.
47. (New) The method as recited in Claim 42, further comprising:
deleting the persistently stored result from the database after a period of time indicated by the at least one condition.
48. (New) The method as recited in Claim 42, further comprising:
determining that the at least one condition is satisfied by based on the persistently stored result and the second database event; and
performing the at least one action related to the composite event.
49. (New) The method as recited in Claim 42, wherein the composite event comprised of two or more primitive events, the at least one condition related to the composite event, and the at least one action related to the composite event are specified in an expression received by the database, the expression identifying two or more primitive event structures, a join condition on the two or more primitive events, and the at least one action to perform in response to satisfying the join condition.
50. (New) The method as recited in Claim 49, where the expression is specified using XML-extended SQL syntax.
51. (New) A computer-readable volatile or non-volatile storage medium for managing event-condition-action rules in a database system comprising one or more sequences of instructions which, when executed by a processor, cause the processor to perform:
storing data in a database that represents a composite event comprised of two or more primitive events, at least one condition related to the composite event, and at least one action related to the composite event;

- detecting a first database event as an occurrence of a first one of the primitive events;
determining whether the first database event satisfies the at least one condition related to
the composite event;
persistently storing the result of the determining in the database;
detecting a second database event as an occurrence of a second one of the primitive
events; and
determining whether the at least one condition is satisfied based on the persistently stored
result and the second database event.
52. (New) The computer-readable medium as recited in Claim 51, further comprising
instructions for:
determining that the at least one condition is satisfied by determining that the second
database event was detected within a particular time after detecting the first
database event; and
wherein the persistently stored result indicates the time the first database event was
detected.
53. (New) The computer-readable medium as recited in Claim 51, further comprising
instructions for:
determining that the at least one condition is satisfied by determining that the second
database event was not detected within a particular time after detecting the first
database event; and
wherein the persistently stored result indicates the time the first database event was
detected.
54. (New) The computer-readable medium as recited in Claim 51, wherein the persistently
stored result indicates that the first database event satisfied the at least one condition.
55. (New) The computer-readable medium as recited in Claim 51, wherein the persistently
stored result indicates that the first database event satisfied that at least one condition
before the second database event satisfied another condition related to the composite
event.

56. (New) The computer-readable medium as recited in Claim 51, further comprising instructions for:
deleting the persistently stored result from the database after a period of time indicated by the at least one condition.
57. (New) The computer-readable medium as recited in Claim 51, further comprising instructions for:
determining that the at least one condition is satisfied by based on the persistently stored result and the second database event; and
performing the at least one action related to the composite event.
58. (New) The computer-readable medium as recited in Claim 51, wherein the composite event comprised of two or more primitive events, the at least one condition related to the composite event, and the at least one action related to the composite event are specified in an expression received by the database, the expression identifying two or more primitive event structures, a join condition on the two or more primitive events, and the at least one action to perform in response to satisfying the join condition.
59. (New) The computer-readable medium as recited in Claim 58, wherein the expression is specified using XML-extended SQL syntax.